Applied Physics A

Solids and Surfaces

Board of Editors

S. Amelinckx, Mol · **H. H. Andersen,** Copenhagen
M. H. Brodsky, Yorktown Heights, NY
R. Gomer, Chicago, IL · **P. Haurojärvi,** Espoo
H. Ibach, Jülich · **M. Kikuchi,** Yokohama
H. K. V. Lotsch, Heidelberg · **M. B. Maple,** La Jolla, CA
D. Mills, Irvine, CA · **R. Osgood,** New York, NY
H. J. Queisser, Stuttgart · **R. Ulrich,** Hamburg
W. Weppner, Stuttgart

Volume A 34 · 1984

Springer-Verlag
Berlin Heidelberg New York Tokyo

Copyright

Submission of a manuscript implies that the work described has not been published before (except in the form of an abstract or as part of a published lecture, review or thesis), that it is not under consideration for publication elsewhere, that its publication has been approved by all the authors and by the responsible authorities – tacitly or explicitly – in the laboratories where the work was carried out and that, if accepted, it will not be published elsewhere in the same form, in either the same or another language, without the consent of the copyright holders. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform, electronic data-base, video-disks, or any other reproductions of similar nature, and translations. Photographic reproduction, microform, electronic data-base, video-disks, or any other reproduction of text, figures, or tables from this journal is prohibited without permission obtained from the publisher.

The use of general descriptive names, trade names, trademarks, etc., in this publication, even if the former are not specifically identified, is not to be taken as a sign that such names are exempt from the relevant protective laws and regulations.
While the advice and information in this journal is believed to be true and accurate at the date of going to press, neither the authors nor the editors nor the publisher can accept legal responsibility for any errors or omissions that may be made. The publisher makes no warrantly, express or implied, with respect to the material contained herein.

Authors of this journal can benefit from library and photocopy fees collected by VG WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin it is recommended that he contacts Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

Special regulations for the USA

Photocopies may be made for personal or internal use beyond that permitted by Sect. 107 or 108 of the U.S. Copyright Law, provided a fee is paid. This fee is $ 0.20 per page or a minimum of $ 1.00 if an article consists of less than five pages. Please pay this fee to the Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970, USA, stating the ISSN 0721-7250, volume, and first and last page numbers of each article copied. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying.

Springer-Verlag Berlin Heidelberg New York Tokyo
Printers: Brühlsche Universitätsdruckerei, Giessen
Printed in Germany © by Springer-Verlag Berlin · Heidelberg 1984

Applied Physics A Solids and Surfaces
© Springer-Verlag 1984

Contents

Anttila, A., see Keinonen, J., et al. 49
Apostol, I., see Ursu, I., et al. 133
Berkley, D.A., see Seggern, H. von, et al. 163
Biersack, J.P., Eckstein, W.: Sputtering Studies with the Monte Carlo Programm TRIM.SP (Invited Paper) ... 73
Bloembergen, N., see Liu, J.M., et al. 25
Blosse, A., Bourgoin, J.C.: Defects in Pulsed Laser and Thermal Processed Ion Implanted Silicon (Invited Paper) 1
Blythe, H.J., see Walz, F. 57
Bourgoin, J.C., see Blosse, A. 1
Bukaluk, A., Rozwadowski, M., Siuda, R.: Determination of the Grain Boundary Diffusion Coefficient from Ag Surface Coverage in Thin Au–Ag Film by Auger Electron Spectroscopy 193
Chapliev, N.I., see Ursu, I., et al. 133
Cohausz, L., see Kassing, R., et al. 41
Coleman, P.G., see Cook, D.R., et al. 237
Cook, D.R., Horsky, T.N., Coleman, P.G.: Elastic and Inelastic Scattering of Slow Positrons from a LiF(100) Surface 237
Dancygier, M., see Laridjani, M., et al. 111
Dinescu, M., see Ursu, I., et al. 133
Dobson, P.J., see Neave, J.H., et al. 179
Doghmane, A., see Snell, A.J., et al. 175
Doormann, V., Krumme, J.-P., Klages, C.-P., Erman, M.: Measurement of the Refractive Index and Optical Absorption Spectra of Epitaxial Bismuth Substituted Yttrium Iron Garnet Films at uv to Near-ir Wavelengths 223
Dose, V., see Eschenbacher, H., et al. 19
Eckstein, W., see Biersack, J.P. 73
Erman, M., see Doormann, V., et al. 223
Eschenbacher, H., Richard, A., Dose, V.: Comparison of Low-Energy Neutral Scattering (LENS) with Low-Energy Ion Scattering (LEIS) at Clean and Adsorbate Covered Ni Surfaces 19
Garside, B.K., see Sundaram, K.B. 117
Göbel, E.O., see Kuhl, J., et al. 105
Gowers, J.P.: TEM Image Contrast from Antiphase Domains in GaAs:Ge(001) Grown by MBE 231
Gronwald, K.-D., Henzler, M.: X-Ray Topography Study of the Cleaved Si-(111)-Face 253
Gross, B., see Seggern, H. von, et al. 163
Hajieva, L.C., see Mamedov, A.M., et al. 189
Henzler, M.: Measurement of Surface Defects by Low-Energy Electron Diffraction (Invited Paper) 205
Henzler, M., see Gronwald, K.-D. 253
Hölzlein, K., Pensl, G., Schulz, M.: Trap Spectrum of the "New Oxygen Donor" in Silicon 155
Hoffman, H.J., see Kassing, R., et al. 41
Holm, C., see Schaub, R., et al. 215
Horsky, T.N., see Cook, D.R., et al. 237
Jayarama Reddy, P., see Sharma, A.K. 69
Jonietz, A., see Kuhl, J., et al. 105
Joyce, B.A., see Neave, J.H., et al. 179
Kassing, R., Cohausz, L., Staa, P. van, Mackert, W., Hoffmann, H.J.: Determination of the Entropy-Factor of the Gold Donor Level in Silicon by Resistivity and DLTS Measurements 41
Keck, K., see Schulze, H.-J. 243
Keinonen, J., Räisänen, J., Anttila, A.: Diffusion of Nitrogen in Vanadium and Niobium 49
Kelić, K., see Nikolić, R., et al. 199
Khan, H.R., see Zhou Xinming, et al. 167
Kingham, D.R., Swanson, L.W.: Shape of a Liquid Metal Ion Source. A Dynamic Model Including Fluid Flow and Space-Charge Effects 123
Klages, C.-P., see Doormann, V., et al. 223
Kőszegi, L., Kronmüller, H.: Magnetic Hysteresis Loops for Several Amorphous Alloys after Various Heat Treatments Below the Curie Point 95
Koma, A., Miki, K.: Core Electron Excitation Spectra of Diamond, Graphite, and Glassy Carbon 35
Konov, V.I., see Ursu, I., et al. 133
Krishnan, R., see Laridjani, M., et al. 111
Kronmüller, H., see Kőszegi, L. 95
Krumme, J.-P., see Doormann, V., et al. 223
Kuhl, J., Göbel, E.O., Pfeiffer, Th., Jonietz, A.: Subpicosecond Carrier Trapping in High-Defect-Density Amorphous Si and GaAs 105
Kurz, H., see Liu, J.M., et al. 25
Langer, J.J.: Protonic $p-n$ Junction 195
Laridjani, M., Krishnan, R., Okoniewska Pszczołkowska, E., Dancygier, M., Sadoc, J.F.: Sputtered Ductile Amorphous $Fe_{80}B_{20}$ Foils. A Structural and Magnetic Study 111
Lau, S.S., see Lien, C.-D., et al. 249
LeComber, P.G., see Snell, A.J., et al. 175
Lewowski, T., Mazur, P.: Attenuation Length of Monoenergetic Electrons Photoinjected Into the NaCl Layer 67
Lien, C.-D., Nicolet, M-A., Lau, S.S.: Kinetics of $CoSi_2$ from Evaporated Silicon 249
Liu, J.M., Lompre, L.A., Kurz, H., Bloembergen, N.: Phenomenology of Picosecond Heating and Evaporation of Silicon Surfaces Coated with SiO_2 Layers 25
Lompre, L.A., see Liu, J.M., et al. 25
Lüth, H., see Ritz, A., et al. 31
Mackert, W., see Kassing, R., et al. 41
Mamedov, A.M., Osman, M.A., Hajieva, L.C.: VUV Reflectivity of $LiNbO_3$ and $LiTaO_3$ Single Crystals. Application of Synchrotron Radiation 189
Mazur, P., see Lewowski, T. 67
Mihăilescu, I.N., see Ursu, I., et al. 133
Miki, K., see Koma, A. 35
Neave, J.H., Joyce, B.A., Dobson, P.J.: Dynamic RHEED Observations of the MBE Growth of GaAs. Substrate Temperature and Beam Azimuth Effects 179

Nešković, O., see Nikolić, R., et al. 199
Nicolet, M-A., see Lien, C.-D., et al. 249
Nikolić, R., Kelić, K., Nešković, O.: The Thermal Conductivities of Some Low Melting Materials Relevant to Energy Storage 199
Okoniewska Pszczołkowska, E., see Laridjani, M., et al. . 111
Osman, M.A., see Mamedov, A.M., et al. 189
Palmetshofer, L.: Ion Implantation in IV–VI Semiconductors (Invited Paper) 139
Pensl, G., see Hölzlein, K., et al. 155
Pensl, G., see Schaub, R., et al. 215
Pfeiffer, Th., see Kuhl, J., et al. 105
Popa, A., see Ursu, I., et al. 133
Prokhorov, A.M., see Ursu, I., et al. 133
Räisänen, J., see Keinonen, J., et al. 49
Raub, Ch.J., see Zhou Xinming, et al. 167
Richard, A., see Eschenbacher, H., et al. 19
Ritz, A., Spitzer, A., Lüth, H.: Adsorption of Ethylene on Clean and Oxygen Precovered Cu(110) Surfaces 31
Rozwadowski, M., see Bukaluk, A., et al. 193
Sadoc, J.F., see Laridjani, M., et al. 111
Schaub, R., Pensl, G., Schulz, M., Holm, C.: Donor States in Tellurium-Doped Silicon 215
Schulz, M., see Hölzlein, K., et al. 155
Schulz, M., see Schaub, R., et al. 215
Schulze, H.-J., Keck, K.: Surface Heat Transfer from Self-Heating Hotspots 243
Seggern, H. von, Gross, B., Berkley, D.A.: Constant Hole Schubweg in Teflon FEP (Fluorinated Ethylene Propylene Copolymer) 163
Sharma, A.K., Jayarama Reddy, P.: Hall Mobility of Evaporated InAs Films Prepared at Different Temperatures 69
Sigmund, P., Szymonski, M.: Temperature-Dependent Sputtering of Metals and Insulators (Erratum) 247
Siuda, R., see Bukaluk, A., et al. 193
Snell, A.J., Doghmane, A., LeComber, P.G., Spear, W.E.: A New Vertically Integrated Amorphous Silicon Addressable Image Sensor 175
Spear, W.E., see Snell, A.J., et al. 175
Spitzer, A., see Ritz, A., et al. 31
Staa, P. van, see Kassing, R., et al. 41
Sundaram, K.B., Garside, B.K.: Controlled Doping of rf Sputtered Germanium Films 117
Swanson, L.W., see Kingham, D.R. 123
Szymonski, M., see Sigmund, P. 247
Ursu, I., Apostol, I., Dinescu, M., Mihăilescu, I.N., Popa, A., Prokhorov, A.M., Konov, V.I., Chapliev, N.I.: Electron-Microscopy Investigations of the Damage of Aluminium Mirrors as a Result of Repeated Powerful Microsecond Pulsed TEA-CO_2 Laser Irradiation in Air 133
Venghaus, H.: Spatial Dependence of Dominant Wavelength of $GaAs_{0.35}P_{0.65}$: N Light Emitting Diodes ... 13
Walz, F., Blythe, H.J.: Investigation of Dielectric After-Effects in Poly- and Single Crystalline $BaTiO_3$ 57
Zhan Ji-yu: Application of the Modified Sub-Regular Solution Model to the Thermodynamic Analysis of Al–Ga Equilibrium Diagrams 185
Zhou Xinming, Khan, H.R., Raub, Ch.J.: Study of the Formation, Crystallization and Electrical Properties of $Pd_{(0.83-x)}X_xSi_{0.17}$ (X = Fe, Co, Ni; $x = 0.05, 0.10. 0.15$) Metallic Glasses 167

Indexed in Current Contents